ASUSTOR AS4002T

IF YOU BUILD IT THEY WILL COME

NAS is coming on strong in leaps and bounds. They've become fully featured servers capable of all manner of functions. The portability of data between devices is becoming a pretty big deal even for the regular consumer. Despite all of the capabilities a NAS offers, one area the consumer NAS has consistently been bottlenecked by is 1GbE networking. While 10GbE is nothing new, its prohibitive cost has primarily relegated it to the professional and enterprise realms. Slowly we are seeing 10GbE filter down into the consumer space, and Asustor is at the head of this trend with the brand new AS4002T.

The AS4002T is designed to be a low cost device that aims to fulfil a simple and obvious role – network attached storage. The included ARM Marvell Armada CPU is not suited for transcoding on the fly or handling intensive tasks, but it's more than sufficient for file sharing purposes and streaming to other devices. Its low power consumption means noise levels are low too, with the sound of the hard drives easily drowning out any operating noise. 2GB of DDR4-2400Mhz RAM is nice to see meaning there's enough capacity to run a reasonable workload without slowdowns or buffering issues.

We have to emphasise how much of a big deal 10Gbase-t networking is, especially considering this is a relatively low spec and affordable ARM unit. If you're using a wired network, the painful time it takes to transfer gigabytes and terabytes of data over 1GbE is simply unacceptable in 2018. We're seeing the winds of change though. 10GbE devices are slowly coming down in price and we hope that it will be only a couple of years before it becomes ubiquitous. That will make the AS4002T a very worthy purchase with a long life. Asustor gives the AS4002T a three year warranty, a welcome development.

The AS4002T looks like a very classy device with its magnetically attached front panel and subtle LEDs. HDD installation is tool free and software installation is as simple as it gets which is key for the consumer market. It comes with a pair of USB 3.0 ports, the aforementioned 10GbE port and a pair of 1GbE ports which support link aggregation.

A major part of the NAS user experience is its software interface and the AS4002T, with the latest Asustor Data Master is one of the best in the business, with a host of apps and features. Backing up, security, surveillance, collaboration, cloud storage, VPN and more is all there.

So how does it perform? As you'd expect, reads and writes over a single 1GbE connection are bottlenecked around the 110-115MB/s mark with any modern hard drive. The dual 1GbE ports, when aggregated go a long way to alleviating bottlenecks on the NAS side at least.

An SSD provides the truest test though. We transferred a 25GB file from a Samsung NVMe drive via an Asus 10GbE NIC directly to a SSD in the NAS. We were able to reach a peak write speed of just over 480MB/s which is not that far from the limit of SATA when the overheads are taken into account. When you're transferring terabytes of data, these kinds of speeds are simply a godsend and perfectly illustrate the advantages of 10GB networking. Now where are those switches and routers? It's about time 1GbE went the way of the dodo.

The Asustor AS4002T excels as a no frills storage solution. If you're looking for fast affordable networked storage, this is as good as it gets. It doesn't have the bells and whistles of some units, but if you're looking for a unit that fulfils its role as network attached storage then the AS400T will serve you well for years to come, especially as 10GbE infrastructure becomes increasingly affordable. Let's not forget that class leading three year warranty as well, making the AS4002T a very worthy future proofed purchase.

CHRIS SZEWCZYK

KEY SPECS

Marvel Armada-7020 1.6GHz Dual Core processor • 2GB DDR4 Memory • 2x SATA 6GB/s bays supporting 2.5 & 3.5In HDD/SSD • 2x12TB maximum capacity • 1x 10GbE • 2x 1GbE • 2x USB 3.1 Gen 1 • 65W power adapter • three year warranty

$429 • www.asustor.com

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